# **Targeting Green Customers**

**Presentation to:** 

**Sixth National Green Power Marketing Conference** 

**Portland, Oregon** 

Dr. Adam Serchuk Principal July 31, 2001



## The story in brief

There is a small but significant percentage of customers willing to pay a substantial amount for green power.

Some of them may even be willing to pay more than green power marketers often charge.

There are ways to find out who they are.



#### Part I. About Primen

- Launched in early 2000
- Seed funding and core intellectual property provided by EPRI and GTI
- Currently 55 people
- Headquartered in Madison, Wisconsin
- Regional offices in Boulder, Portland, San Diego, and Chicago

Primen develops and delivers market **intelligence** for the evolving retail energy industry to help our clients:

> understand retail energy markets

identify new business opportunities

effectively target products and services

across all customer segments.



#### **What Primen does**

Focused on five key "practice areas"

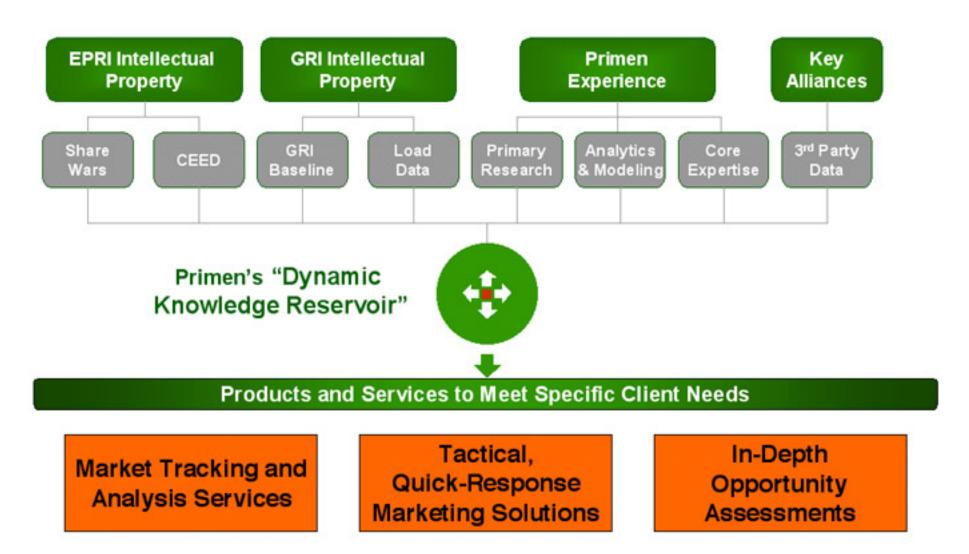
- Understanding Today's Energy Customers
- Evaluating New Product and Service Opportunities
- Estimating Energy Use and Load Profiles
- Managing Customer Satisfaction
- Track Distributed Energy and Other Emerging Technologies

These are complemented by expertise in power integrity, energy efficiency and load management, and energy e-business.

We combine **primary** research & analysis with **off-the-shelf** data in a unique, powerful package.



## The most comprehensive database of energy-related customer info in the U.S.





### Our guiding principle

It's not just about price.

Or, it doesn't have to be about price.

Customers will purchase a variety of value-added products and services if companies offer them.



### Part II. Primen's ShareWars simulator

- Based on a **national sample** of about 5,500 electricity customers from all segments.
- **Discrete choice** rather than questions about preferences or attributes.
  - Respondents choose preferred product configuration from small set of options.
  - Discrete choice may help reduce "social desirability bias."
- Focuses on market share among groups of firms offering different mixes of products.



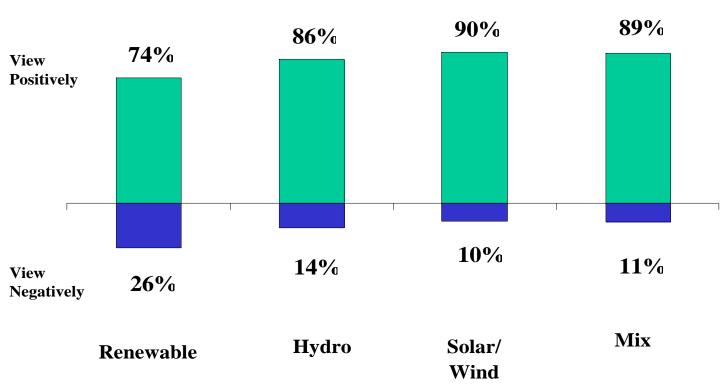
#### **ShareWars customization**

- The following results describe the evolution of market conditions over time, assuming a typical starting point.
- •A customized ShareWars projects would produce targeted results starting from a specific starting point:
  - Number and type of firms;
  - Type of products;
  - Price of products;
  - Generating resource type;
  - Etc.



## **ShareWars contains some conventional preference questions**

#### **Residential Customers**





### Sample ShareWars choice question

If you had to choose one of these *four electricity supply offers*, which ONE would you choose? *(Circle one letter)* 

#### A

- A neighboring electric company
- Fixed price of 10 ¢ per kWh
- 0% renewable energy
- No renewable energy sources

#### В

- A well-known energy company
- Fixed price of 13 ¢ per kWh
- 100% renewable energy
- Primarily hydro (water) energy sources

#### C

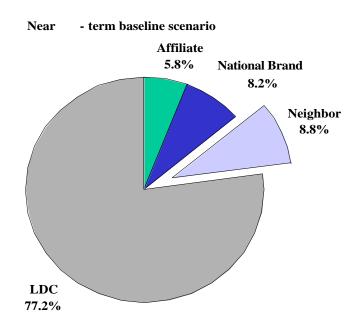
- An affiliate of your local electric company
- Fixed price of 12 ¢ per kWh
- ◆ 50% renewable energy
- Mix of renewable energy sources

#### D

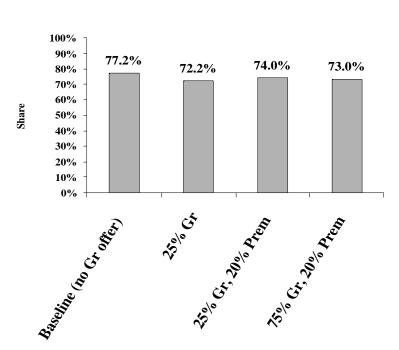
- ◆ A well-known energy company
- Fixed price of 13 ¢ per kWh
- ◆ 50% renewable energy
- Primarily wind and/or solar energy sources



## Near-term residential market shares, given typical starting point



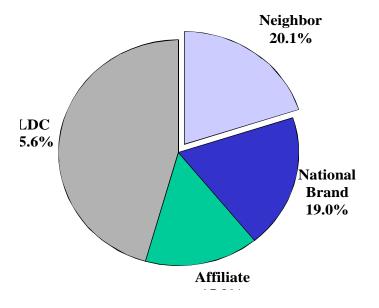
#### The LDC is slightly vulnerable in the near term when a neighboring utility offers green



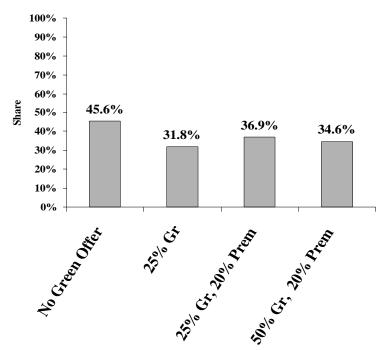


## Mid-term residential market shares, given typical starting point

#### Mid-term baseline scenario



The LDC is significantly more vulnerable to green offers 3-5 years into a competitive market.





## Willingness to pay for renewables: Residential

ShareWars	5 ¢/kWh	8¢/kWh	10 ¢/kWh
No renewables	0.00	0.00	0.00
Primarily hydro	1.45	1.63	1.77
Primarily wind or solar	1.84	2.07	2.25
Mix of renewables	2.12	2.38	2.59



## Willingness to pay for renewables: Large commercial

ShareWars	3 ¢/kWh	6¢/kWh	9¢/kWh
No renewables	0.00	0.00	0.00
Primarily hydro	1.20	1.36	1.42
Primarily wind	0.59	0.67	0.70
Mix of renewables, inc. solar	1.06	1.20	1.25



### Willingness to pay for renewables: Small commercial and industrial

ShareWars	3 ¢/kWh	6¢/kWh	9¢/kWh
No renewables	0.00	0.00	0.00
Primarily hydro	0.71	0.93	1.04
Primarily wind	0.40	0.52	0.58
Mix of renewables, inc. solar	0.78	1.02	1.14



## Willingness to pay for renewables: Large industrial

ShareWars	3 ¢/kWh	6¢/kWh	9¢/kWh
No renewables	0.00	0.00	0.00
Primarily hydro	0.70	0.79	0.82
Primarily wind	0.21	0.24	0.25
Mix of renewables, inc. solar	0.79	0.89	0.93



### Insights about willingness to pay

- Positive WTP: All segments will pay for renewable energy, although some green premiums are small: 0.20 – 2.60 ¢/kWh.
  - Residential willing to pay the most, but large commercial still almost 1.5 ¢/kWh in some cases.
- **Opportunities:** There are pockets of much higher WTP within these averages.
- **Resource variance:** Respondents demonstrate lowest WTP for wind.
- Low sensitivity: The higher the base price, the higher the premium they are willing to pay.
  - Large industrials are most price sensitive.



### **Part II: Conventional surveys**

#### Surveys can:

- Give information on expressed willingness to purchase—although this has to be discounted for several reasons;
- Help discern attitudes that can help or hinder marketing attempts;
- Provide background for program/product design;
- Incorporate green power into overall satisfaction strategy, and;

The following examples are taken from a survey of residential customers performed on behalf of a small utility in 2001.

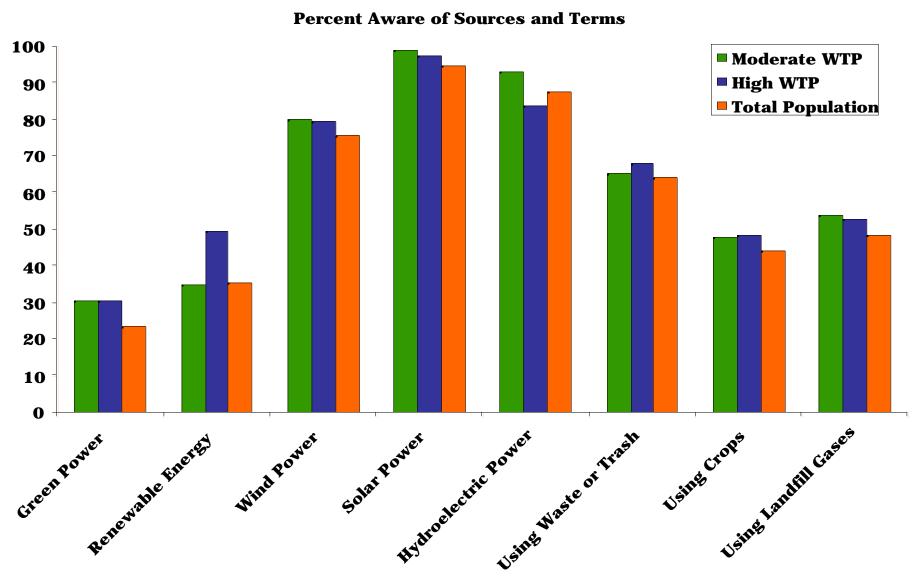


## Willingness to purchase in "Territory X"

Segment	Percent
Not likely to choose green power	47%
Likely to choose green, but at no additional cost	53%
Likely to pay \$3.50 for green power	32%
Likely to pay \$7.00 for green power	21%
Likely to pay \$10.50 for green power	17%
Likely to pay \$14.00 for green power	14%



### Awareness of concepts in "Territory X"





#### **Environmental attitudes in "Territory X"**

#### About 85% of respondents say:

- · Individuals need to take personal responsibility for the environment; and
- We have a responsibility to preserve the environment for future generations.

However, only 25% of respondents see household energy consumption as a major environmental problem.

 Even those who consider global warming and local air pollution serious problems.

In short, most respondents have not clearly drawn the link between their environmental beliefs and their own energy behavior at home.

Turning those beliefs into a significant market-mover will therefore presumably require targeted consumer education and market conditioning.



## The missing link between pollution and household energy use in "Territory X"

Percent who Agree or Disagree that "Household Energy Consumption is Not a Major Contributor to Environmental Problems"





## Surveys can go beyond price points and resources to program design

Ex: Households *not* willing to pay for green power are, in general, *less* efficient than the general population.

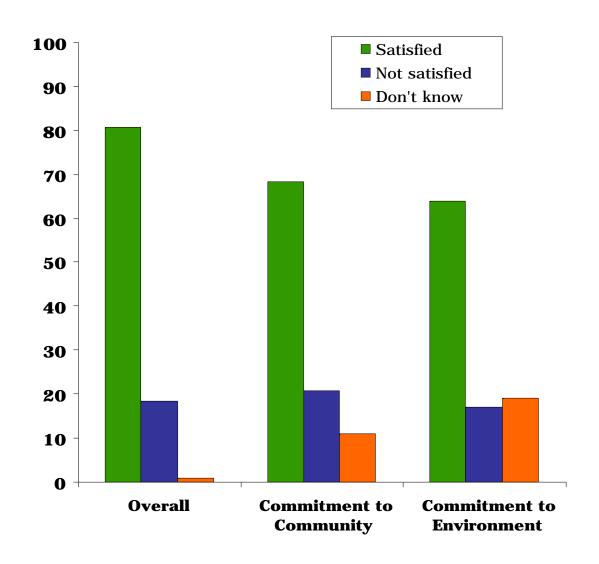
We therefore looked specifically at the 21% of respondents likely to purchase green power only at zero additional cost:

- The majority (52%) have homes 20 years or older and have annual household incomes below \$40,000 (56%).
- Most have central air conditioning (68%) and half have central forced-air furnaces.
- Less than a quarter have installed energy efficiency lighting or replaced their furnace within the last 5 years.
- Less than a third have replaced an air conditioning system or installed new insulation within the last 5 years.

In short, energy efficiency linkages might be a way to expand the market for green power to these "zero cost tolerance" consumers.

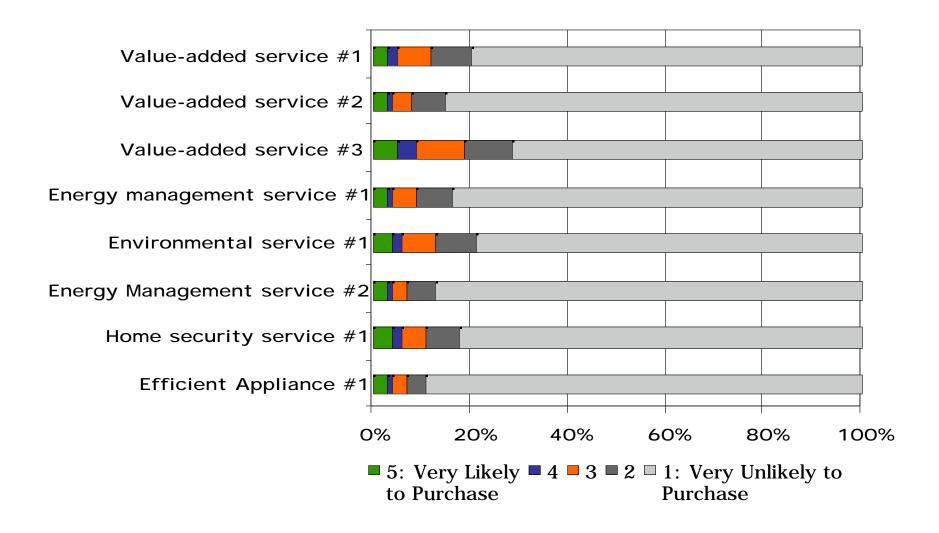


# Satisfaction with electric utility in "Territory X"





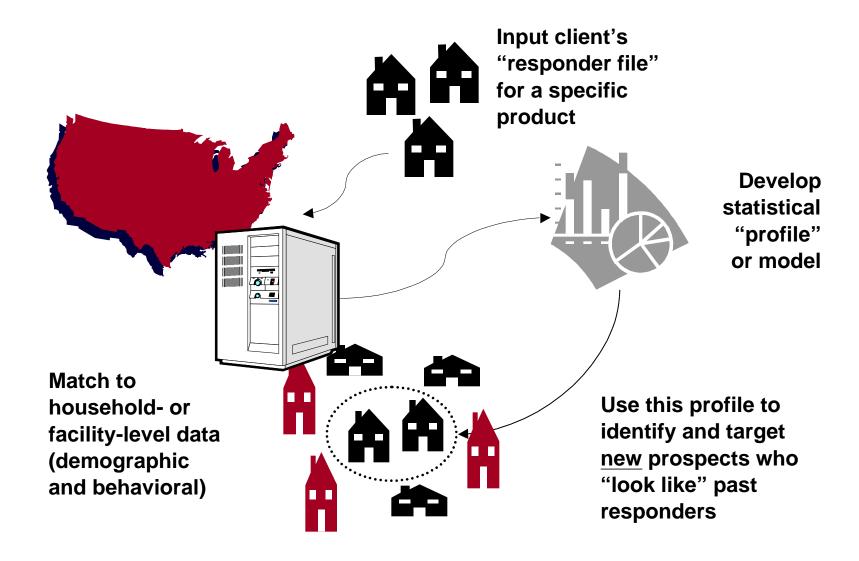
### Part III. Why targeting is critical



Source:Primen Research for EPRI Study, 9/2000



## Using data to target value-added products and services





## **Example: Using purchase data to profile green purchasers**

Purchase Category	Pct. Average Households w/purchase in past 18 mos.	Pct. "Green Energy Buyers" w/purchase in past 18 mos.	Index (avg=100)
Category #1	3.2	9.0	279
Category #2	4.6	10.2	223
Category #3	9.1	18.8	206
Category #4	7.0	11.7	168
Category #4	12.7	19.2	151
Category #5	7.5	5.9	79
Category #6	2.6	2.0	76
Category #7	21.9	15.5	71
Category #8	3.1	2.0	<b>65</b>
Category #9	3.0	1.6	52



#### The final question:

Does anyone care what customers want?

Will anyone care what customers want in three to five years?

Will the electricity market be set up to allow providers to offer the things that customers want?



### For further information

#### Please contact:

Dr. Adam Serchuk, Principal Primen 1001 Fourier Dr., Suite 200 Madison, WI 53717

(608) 829-3868, ext. 6042

Aserchuk@primen.com

www.primen.com

